

AMENDMENTS TO THE CLAIMS

1. (Currently Amended) A device comprising a first support element (100), a second support element (110) which is separate from said first support element (100), a structure (10) comprising pretensioned fibers able of rupture when bent with a radius of curvature which is smaller than a predetermined threshold, said pretensioned fibers being placed in tension between said two support elements (100, 110), a beam (150) inserted between said two support elements (100, 110) in parallel with the structure so as to work in compression between said two support elements (100, 110), and a rupture device (20, 30, 40, 50) comprising two stressing members (20, 30) and operating means (40), said two stressing members (20, 30) being arranged one on each side of the fibers (10), said stressing members being able to relative displacement toward each other, one or said stressing members having an edge directed towards the fibers, said edge having a radius of curvature which is smaller than the minimum radius that the fibers can tolerate before they rupture in bending, and said operating means (40) being designed to bring about the relative displacement of said stressing members (20, 30) associated with said structure in tension (10) so as to bend and to rupture said structure in tension when said pretensioned fibers are bent with a radius of curvature which is smaller than said predetermined threshold on demand, characterized in that said device additionally comprises a beam (150) working in compression, inserted between said two support elements (100, 110) in parallel with the structure to be ruptured (10).
2. (Cancelled)
3. (Currently Amended) The device as claimed in claim 2~~1~~, characterized in that the stressing members comprise a punch (30) and retaining means (20) arranged one on each side of the fibers (10).
4. (Currently Amended) The device as claimed in claim 2~~1~~, characterized in that the operating means (40) are of pyrotechnic type.

5. (Currently Amended) The device as claimed in claim ~~21~~, characterized in that the operating means (40) comprise a pyrotechnic charge (50) capable of generating a high-pressure gas and an inflatable sealed member (60) connected to the pyrotechnic charge (50) and in contact with at least one of the stressing members (20, 30) so as to bring about a relative displacement of these when said charge (50) is initiated.
6. (Previously Presented) The device as claimed in claim 1, characterized in that the structure to be ruptured (10) is made at least in part of composite material.
7. (Previously Presented) The device as claimed in claim 1, characterized in that the structure to be ruptured (10) consists of a strap.
8. (Cancelled)
9. (Currently Amended) The device as claimed in claim ~~21~~, characterized in that the ~~element-structure~~ to be ruptured (10) is nonhomogeneous over its entire length: ~~it~~ and consists essentially of fibers at the rupture zone placed facing the stressing members (30) and consists of a composite material, fibers embedded in a synthetic material, outside this rupture zone.
10. (Previously Presented) The device as claimed in claims 1, characterized in that the fibers that make up the structure to be ruptured (10) have a longitudinal elastic modulus in excess of 20 000 MPa.
11. (Currently Amended) he device as claimed in claim 1, characterized in that the fibers that make up the structure to be ruptured (10) have a diameter ~~of the order of 0.1 to 25 μm , or even of 0.1 to 10 μm .~~
12. (Currently Amended) The device as claimed in claim ~~21~~, characterized in that one of the stressing members comprises a punch (30) made of high-carbon steel.
13. (Currently Amended) The device as claimed in claim ~~21~~, characterized in that one of the stressing members comprises a punch (30) which defines a dihedron, the angle of which is between 30 and 90°, ~~preferably of the order of 60°.~~

14. (Previously Presented) The device as claimed in claim 3, characterized in that the punch (30) has an edge (33), the maximum radius of curvature r of which is defined by the relationship
- $$r = [(d/2)E]/\sigma$$
- in which
- . σ represents the maximum local extensile or compressive stress,
 - . E represents the longitudinal elastic modulus, and
 - . d represents the diameter or thickness of the beam consisting of a fiber (10).
15. (Currently Amended) The device as claimed in claim 3, characterized in that the punch (30) has an edge (33), the radius of curvature r of which is at maximum of the order of 1 mm, ~~preferably at maximum of the order of 0.75 mm.~~
16. (Cancelled)
17. (Currently Amended) The device as claimed in claim ~~2~~1, characterized in that the operating means (40) comprise a pyrotechnic generator (50) which has an electric initiator (56).
18. (Currently Amended) The device as claimed in claim ~~2~~1, characterized in that the operating means (40) comprises a pyrotechnic generator (50) which has a charge (54) capable of generating a gas by combustion.
19. (Original) The device as claimed in claim 5, characterized in that the inflatable sealed member (60) is formed of a stainless steel tube.
20. (Currently Amended) The device as claimed in claim 5, characterized in that the inflatable sealed member (60) has a diameter of ~~the order of~~ 4 mm.
21. (Currently Amended) The device as claimed in claim ~~2~~1, characterized in that the stressing means comprise a punch and retaining means (20) formed of an anvil and located one on each side of the structure to be ruptured (10).
22. (Cancelled)

23. (Previously Presented) The device as claimed in claim 21, characterized in that the anvil (20) is made of medium-carbon steel.

Claims 24-30 (Cancelled)

31. (Previously Presented) The device as claimed in claim 5, characterized in that a pyrotechnic generator (50) is designed to emit at least 1.5 l of gas at one atmosphere.
32. (Cancelled)
33. (Currently Amended) The device as claimed in claim 1, characterized in that it said structure (10) has an annular structure.
34. (Original) The device as claimed in claim 33, characterized in that the structure to be ruptured (10) is formed of a continuous annulus.
35. (Original) The device as claimed in claim 33, characterized in that the structure to be ruptured (10) is formed of several elements distributed about the axis O-O of the structure.
36. (Previously Presented) The device as claimed in claim 1, characterized in that the beam (150) working in compression is formed integrally with one of the two support elements (100, 110).
37. (Previously Presented) The device as claimed in claim 3, characterized in that the beam (150) working in compression also serves as retaining means (20).
38. (Previously Presented) The device as claimed in claim 3, characterized in that the beam (150) working in compression also serves as a guide for the punch (30) and, as appropriate, for an inflatable tube (60) belonging to the operating means.

Claims 39-49 (Cancelled)

50. (New) The device as claimed in claim 1, characterized in that the fibers that make up the structure to be ruptured (10) have a diameter of 0.1 to 10 μm .

51. (New) The device as claimed in claim 1, characterized in that one of the stressing members comprises a punch (30) which defines a dihedron, the angle of which is about 60°.
52. (New) The device as claimed in claim 3, characterized in that the punch (30) has an edge (33), the radius of curvature of which is at maximum of 0.75 mm.